

Initial Impact of Concept 3 on the Regional Transportation System

Transit Planning Board
Planning and Funding Committee
May 22, 2008

Overview

- System Connectivity
- Activity Center Accessibility by Transit
- Performance Impact
 - Incorporating Safety
- Other Thoughts
- Recap

System Connectivity

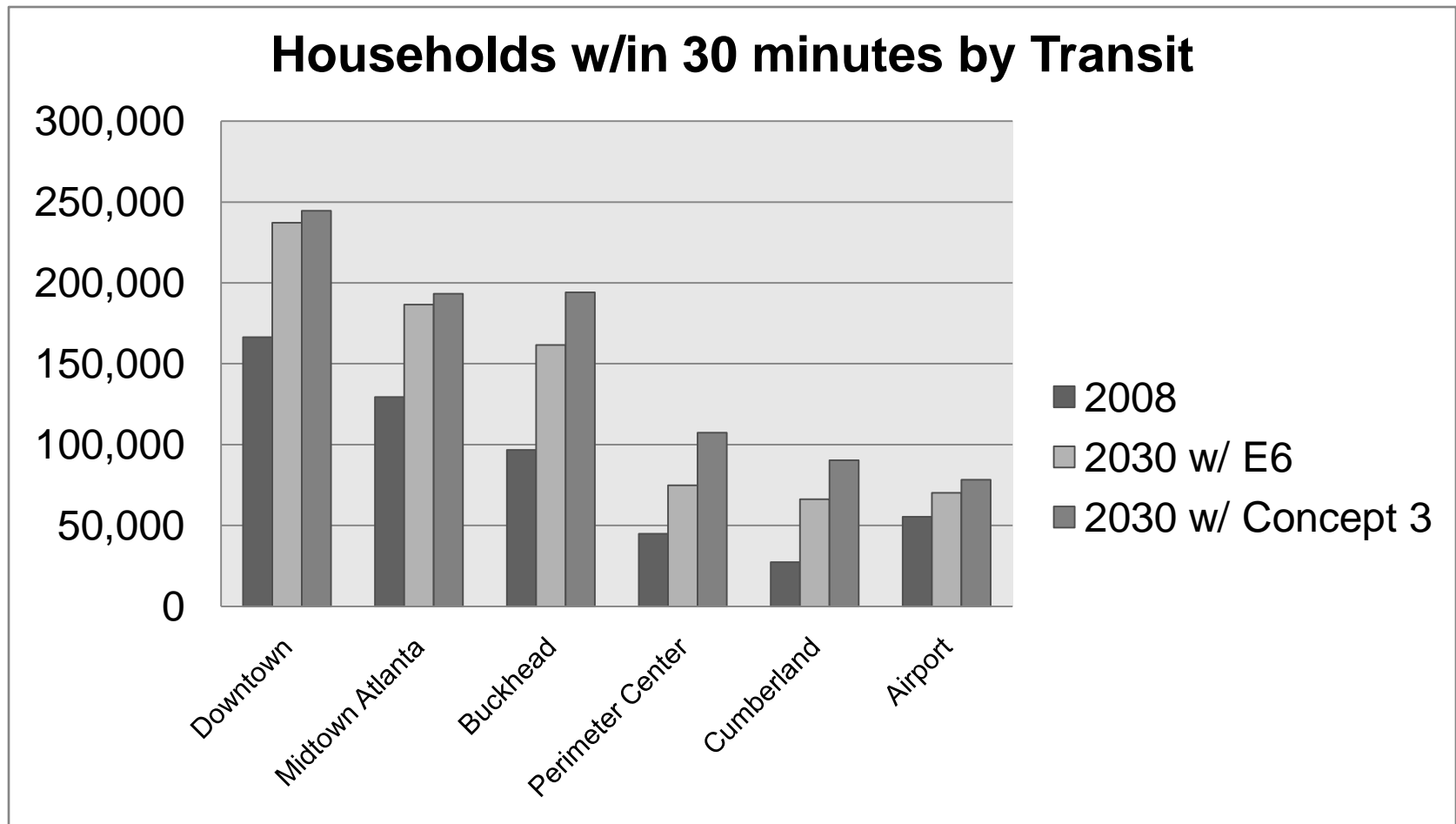
- Trips requiring 3 or 4 transfers eliminated
- # of transfer trips between Activity Centers increased from 12 to 40

Number of Transfers Required Between Activity Centers	Existing	Concept System 3
0	12	40
1	25	33
2	24	5
3	13	0
4	4	0
Total	78	78

Concept 3 as Presented on 11/29/07

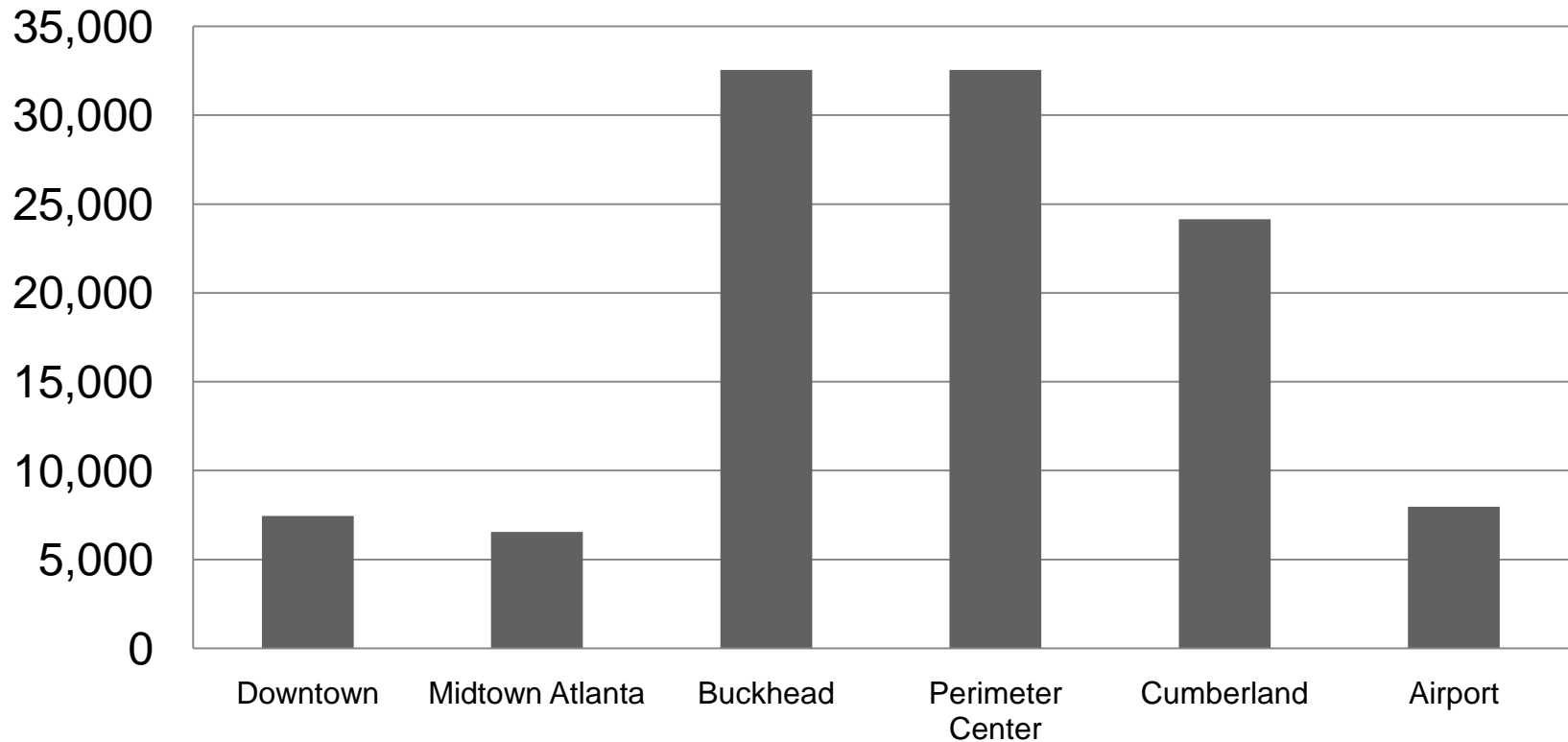
	Airport	Buckhead	Cumberland	Downtown	Emory	FIB	Gwinnett Place	Midtown	Northpoint	Peachtree Corners	Perimeter Center	Southlake	Town Center	TOTAL
Airport		0	1	0	0	1	1	0	0	0	0	0	0	4
Buckhead	0		1	0	1	2	1	0	0	0	0	0	0	6
Cumberland	1	1		0	0	0	0	0	1	0	0	1	0	4
Downtown	0	0	0		1	1	1	0	0	0	0	0	0	3
Emory	0	1	0	1		1	1	1	1	2	1	0	1	10
FIB	1	2	0	1	1		1	1	2	2	1	2	1	15
Gwinnett Place	1	1	0	1	1	1		1	1	0	0	1	0	8
Midtown	0	0	0	0	1	1	1		0	1	0	1	0	5
Northpoint	0	0	1	0	1	2	1	0		1	0	1	1	8
Peachtree Corners	0	0	0	0	2	2	0	1	1		0	0	0	6
Perimeter Center	0	0	0	0	1	1	0	0	0	0		1	0	3
Southlake	0	0	1	0	0	2	1	1	1	0	1		1	8
Town Center	1	1	0	0	1	1	0	0	1	0	0	1		6
TOTAL	4	6	4	3	10	15	8	5	8	6	3	8	6	86

Activity Center Accessibility by Transit



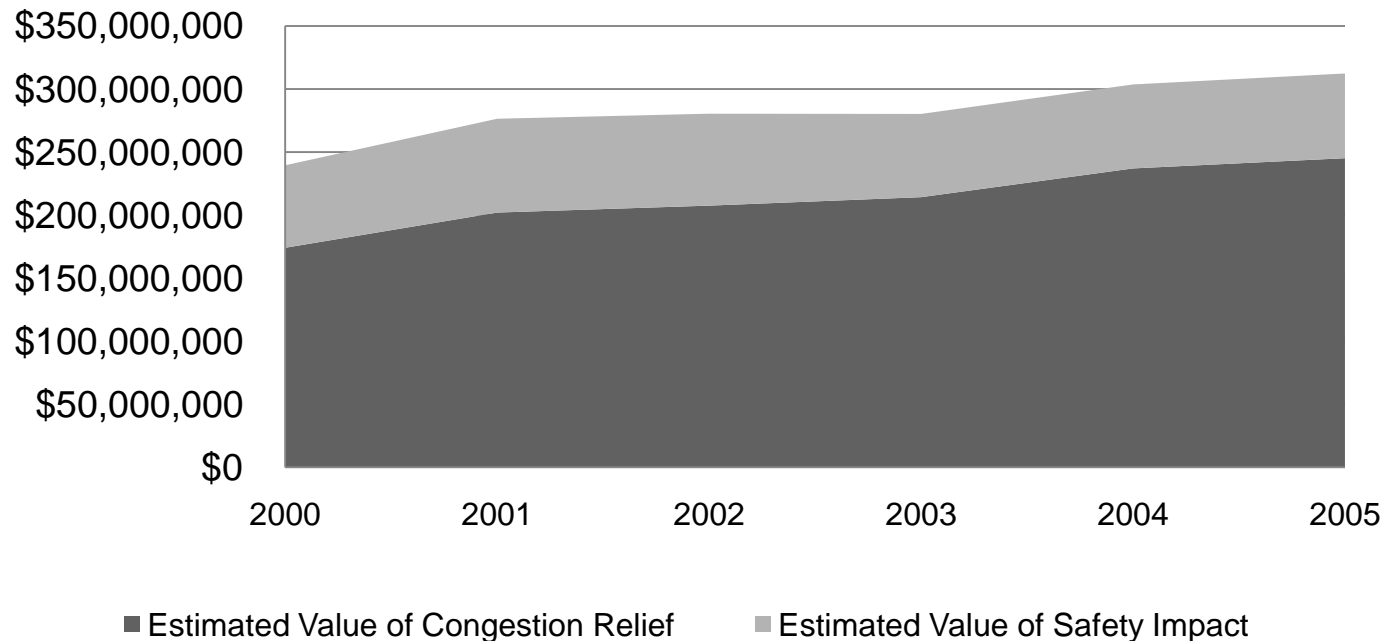
Activity Center Accessibility by Transit

Change in Households within 30-minutes by Transit from E6 to Concept 3



Performance Impact: Incorporating Safety

Estimated Value of Historic Congestion and Safety Benefits



1 – Safety Calculated according to “TPB 052208 – Safety Analysis Memo”

2 – Congestion Benefits from 2007 Urban Mobility Report from the Texas Transportation Institute

Performance Impact: Incorporating Safety

Total Funds for Operations	2000	2001	2002	2003	2004	2005	Total (2001 - 2005)
Total	\$345,269,291	\$359,800,994	\$379,112,154	\$407,062,509	\$398,676,914	\$411,908,489	\$2,721,045,315
Cost and Benefits							
Public Funding (Total - Fares - Other Revenues)							
	\$215,903,733	\$211,944,574	\$246,140,696	\$277,560,886	\$278,048,073	\$284,948,151	\$1,298,642,380
Estimated Value of Congestion Relief							
	\$174,200,000	\$202,100,000	\$207,600,000	\$214,300,000	\$237,100,000	\$245,200,000	\$1,280,500,000
Estimated Value of Safety Impact							
	\$65,400,000	\$74,400,000	\$72,900,000	\$66,000,000	\$66,600,000	\$67,200,000	\$412,500,000
Estimated Value of Congestion and Safety Impact							
	\$239,600,000	\$276,500,000	\$280,500,000	\$280,300,000	\$303,700,000	\$312,400,000	\$1,693,000,000
Ratio of Estimated Value of Congestion and Safety Impact / Public Funding							
	1.11	1.30	1.14	1.01	1.09	1.10	1.12
Estimated Avoided Fatalities							
	9	10	10	10	10	10	
Estimated Avoided Injuries							
	643	709	678	579	550	521	

[1] "Performance Measures Summary for Atlanta," 2007 Urban Mobility Report (College Station, TX).
http://mobility.tamu.edu/ums/congestion_data/tables/atlanta.pdf (last accessed: May 15, 2008)

Other Thoughts

- Overall results show a conservative estimate of impact
- Support ARC's effort to update the regional transit On-Board Survey

Recap

- Concept 3 significantly links Activity Centers together
- Increase in accessibility to employment centers, particularly outside of Downtown and Midtown
- Estimates show significant safety benefits and methodology for future estimates
- Need a new Transit On-Board Survey

Next Steps

- Development of ARC Land Use model scenarios
- Produce range of potential safety and congestion benefits
- Produce range of reasonable ridership and other system characteristics
- Final report of impact of regional transit on the regional transportation system